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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 1 1992

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

MEMORANDUM

SUBJECT: Bunker Hill Success Story

FROM: Richard J. Guimond
Assistant Surgeon General, USPHS
Deputy Assistant Administrator

TO: Randall F. Smith, Director
Hazardous Waste Division
Region X

Thank you for the fact sheet on Region X's success in reducing the risk of lead contamination to children in the Bunker Hill area of northern Idaho. This is exactly the type of quantifiable success that Superfund needs, and should be credited. I commend your use of the removal program to expedite the response and to reduce immediate risk while the remedial process is underway. This is a good example of how we should be using the Superfund Accelerated Cleanup Model approach.

cc: Director, Waste Management Division
Regions I, IV, V, VII
Director, Emergency and Remedial Response Division
Region II
Director, Hazardous Waste Management Division
Regions III, VI, VIII, IX
Director, Environmental Services Division
Regions I, VI, VII

United States
Environmental Protection
Agency

Region 10
1200 Sixth Avenue
Seattle WA 98101

Alaska
Idaho
Oregon
Washington

EPA

March 30, 1992

What about Indian tribes?

Reply To
Attn Of: HW-113

MEMORANDUM

SUBJECT: Success Story at Bunker Hill

FROM: Randall F. Smith, Director
Hazardous Waste Division

TO: Richard Guimond, Deputy Assistant Director
Solid Waste and Emergency Response (OS-100)

Henry Longest, II, Director,
Office of Emergency and Remedial
Response (Superfund) (OS-200)

Bruce M. Diamond, Director
Office of Waste Programs Enforcement (OS-500)

Attached is a success story which I hope you will find useful and interesting. Essentially, blood lead in children near the Bunker Hill complex has been steadily declining, due in part to removals conducted with the Fund, and by PRP's under consent order. This is one of the few instances where we have good data to show actual improvement in health effects due to government actions. (We also suspect that some of the decline in blood lead levels is due to dispersion of the lead over time.)

Please let us know if this is the type of story you are looking for.

Attachment

cc: Sally Mansbach
Joe Tieger
Deborah Dietrich
Nancy Briscoe

SUCCESS STORY
BUNKER HILL - NORTHERN IDAHO

EPA Actions Dramatically Reduce Lead From Children's Blood At Superfund Site In Northern Idaho

History

In 1974 one of the worst cases of lead poisoning in medical history occurred in the Silver Valley, Northern Idaho. A lead smelter operated by Gulf Resources and Chemical had a fire in the bag house (a pollution control facility designed to reduce lead emissions to the air) and much of the pollution control equipment was destroyed. Instead of shutting down production, the smelter continued to operate at full capacity without the pollution control equipment. Tons of lead particulate matter settled onto the five communities where 5,000 people currently live.

Health Concerns

In 1974 the average blood-lead levels were alarming, an average of 65 units. Lead in the human body is measured by the amount of lead in blood (units = micrograms of lead per deciliter of blood). The old standard of concern was 25 units, which has since been lowered to 10 units. Excessive amounts of lead in the human system has been linked to impaired neuro-behavioral development, kidney damage, anemia, and hypertension, especially in children. In 1983 EPA listed the area surrounding the smelter as a Superfund Site, thereby bringing the financial and legal tools of the Superfund program to bear on the problem.

Government Response

In 1984, a comprehensive community health intervention program funded by the federal government was begun to reduce exposure to lead through educational and outreach efforts to improve hygiene practices, parental awareness of childhood exposure concerns, and individual consultations. Since 1986, EPA has used its emergency cleanup authority to conduct three cleanups of lead in parks, playgrounds, and yards. EPA has cleaned up virtually all yards of homes with children under 12 years of age or pregnant women. These 300 yard cleanups required removal of the top one foot of soil, replacement with clean soil, and sod. In 1991, responsible parties under enforcement orders from EPA conducted yard cleanups with EPA overseeing the work.

Where We Are Today

The success of the cleanups and the health Education and intervention conducted by the local Panhandle Health District was dramatically shown by the blood lead screening conducted in the summer of 1991. The average level is now 7 units, about the

national average. Cleanup, health programs, and migration of the lead contaminants have all contributed to the reduction in blood-lead units. There is still much cleanup to be done to ensure the blood lead levels remain low, and the blood screening and education programs will continue in the foreseeable future.